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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,521

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Steven M. Viny

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09/11/2006

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EXAMINER

HAGEMAN, MARK

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/790,521	<b>Applicant(s)</b> VINY, STEVEN M.	
	<b>Examiner</b> Mark Hageman	<b>Art Unit</b> 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 2,8 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7, 9 and 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 3 recites the limitation "'according to claim 2 '" in line 1. This renders claim 3 indefinite as claim 2 has been cancelled and therefore it is not clear what limitations are included in claim 3. Claim 3 has been treated as dependant upon claim 1 for this office action.
4. Claims 7 – 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 7 recites the limitation "the two side elongate elements" in line 6. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roman in view of US 6,260,712 to Flottmann et al. Roman discloses, a first conveyor system having a conveyor belt (18) wrapping around a roller (24) at one end of the conveyor

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belt, the conveyor belt having a direction of travel to the roller at the one end (fig 4) and conveying the pieces shredded trash, in the direction of travel, to the end of the conveyor belt; an air manifold (116, 122) positioned underneath and approximately at the end of the conveyor belt (fig 4) for blowing the pieces of shredded trash exiting the conveyor belt with an air stream which is generally in the direction of travel of the conveyor belt to the roller at one end, a splitter plate system (164) disposed at a position forward of the end of the conveyor system comprising a cylinder (166) which is essentially parallel to the roller at the end of the conveyor belt. Roman does not disclose, means for moving the splitter plate-system towards and away from the first conveyor system. Flottmann discloses, means for moving the splitter plate-system towards and away from the first conveyor system (6, c2 lines 64-67) for the purpose of controlling the separation level (c2 lines 64-67).

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman to include means for moving the splitter plate-system towards and away from the first conveyor system, as taught by Flottmann, for the purpose of controlling the separation level (c2 lines 64-67).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roman in view of Flottmann as applied to claim 1 above, and further in view of Wilbur. Roman in view of Flottmann discloses all the limitations of the claim except, wherein the roller rotates in a counterclockwise direction and the cylinder is rotated in the same direction. Wilbur discloses, wherein the roller rotates in a counterclockwise direction and the cylinder is rotated in the same direction (4 lines 40-41) for the purpose of biasing the

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sorted items to the appropriate outfeed chute (c4 lines 41-48). "Counterclockwise direction" is not given patentable weight as the rotational direction of the roller and the cylinder are relative to the position of the observer.

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman in view of Flottmann to include wherein the roller rotates in a counterclockwise direction and the cylinder is rotated in the same direction, as taught by Wilbur, for the purpose of biasing the sorted items to the appropriate outfeed chute (c4 lines 41-48).

9. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roman in view of Flottmann in further view of Wilbur.

-Re claim 4, Roman further discloses, a splitter sheet (158, 160) hanging below the cylinder (166), defining a first accumulation area (74) on one side of the splitter sheet which is proximal the first conveyor system; and a second accumulation area (76) on another side of the splitter sheet which is distal the first conveyor system.

-Re claim 5, Roman further discloses, the second accumulation area has a second conveyor system (84) for removing the lighter materials that accumulate on the side of the splitter sheet which is distal the first conveyor system (Fig. 1).

-Re claim 6, Roman further discloses, the conveyor belt is disposed at an angle "a" with respect to horizontal; and the angle is approximately 30-60 degrees (Fig. 4).

10. Claims 7, 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufmann in view of Wilbur in further view of Flottmann. Kaufmann discloses, a structural frame having opposite side elongate elements (68) and a splitter sheet (65)

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hanging from the two side elongate elements. Kaufmann does not disclose a bottom cylinder extending between the side elongate elements and means for adjusting the speed and direction of rotation of the cylinder. Wilbur discloses, a bottom cylinder (42) extending between the side elongate elements and means for adjusting the speed and direction of rotation of the cylinder (c4 lines 11-13) for the purpose of biasing the sorted items to the appropriate outfeed chute (c4 lines 41-48).

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman to include a bottom cylinder (42) extending between the side elongate elements and means for adjusting the speed and direction of rotation of the cylinder, as taught by Wilbur, for the purpose of biasing the sorted items to the appropriate outfeed chute (c4 lines 41-48).

Kaufmann also does not disclose, means for moving the structural frame towards and away from the conveyor system. Flottmann discloses, means for moving the structural frame towards and away from the conveyor system (c2 lines 63-66) for the purpose of controlling the separation level (c2 lines 64-67).

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman in view of Wilbur to include means for moving the structural frame towards and away from the conveyor system, as taught by Flottmann, for the purpose of controlling the separation level (c2 lines 64-67).

-Re claim 9, Flottman further discloses, means for raising and lowering the structural frame (c2 lines 63-66) for the purpose of controlling the separation level (c2 lines 64-67).

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman in view of Wilbur in further view of Flottmann to include means for raising and lowering the structural frame, as taught by Flottmann, for the purpose of controlling the separation level (c2 lines 64-67).

-Re claim 11, Kaufmann further discloses, the structural frame is a generally rectangular structural frame having a top elongate element (69) and two opposite side elongate elements (68) extending downwards from opposite ends of the top elongate element, and a bottom elongate element (66 - adjacent elements 68) extending between bottom portions of the side elongate elements, thereby forming a generally rectangular window; and the splitter sheet hangs from bottom ends of the two side elongate elements (Fig. 5). What constitutes an elongate element? What does it mean to extend between bottom portions of the side elongate elements? Examiner contends that these limitations are met by the reference as the bottom elements have a length and they extend between bottom portions of the side elements individually.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roman in view of Flottmann. Roman discloses, conveying the pieces of shredded trash (col. 1, lines 5+), in a direction of travel, to an end of a conveyor having a roller at one end; blowing the pieces of shredded trash exiting at the end of the conveyor (18), with an airstream (fig 4) which is generally in the direction of travel of the conveyor; disposing a splitter plate system (50), including a cylinder (166) which is essentially parallel to the roller at the end of the conveyor and a splitter sheet, forward of the end of the conveyor; and collecting the relatively heavier pieces of material in a first accumulation area (74)

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on one side of the splitter sheet which is proximal the end of the conveyor and collecting the relatively lighter pieces of material in a second accumulation area (76) on an opposite side of the splitter sheet which is distal the end of the conveyor (Fig. 4).

Roman does not disclose, moving the splitter plate system with respect to the first conveyor system so that the relatively lighter pieces of material will be projected over the cylinder. Flottmann discloses, moving the splitter plate system with respect to the first conveyor system so that the relatively lighter pieces of material will be projected over the cylinder (c2 lines 63-65) for the purpose of controlling the separation level (c2 lines 66-67).

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman to include moving the splitter plate system with respect to the first conveyor system so that the relatively lighter pieces of material will be projected over the cylinder, as taught by Flottmann, for the purpose of controlling the separation level (c2 lines 66-67).

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roman in view of Flottmann as applied to claim 12 above, and further in view of Wilbur. Roman in view of Flottmann discloses all the limitations of the claim except, rotating the cylinder. Wilbur discloses, rotating the cylinder (42 c4 lines 10-12) for the purpose of biasing the sorted items to the appropriate outfeed chute (c4 lines 41-48).

It would have been obvious to one of ordinary skill in the art at the time of



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applicants' invention to have modified Roman in view of Flottmann to include rotating the cylinder, as taught by Wilbur, for the purpose of biasing the sorted items to the appropriate outfeed chute (c4 lines 41-48).

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roman in view of Flottman. Roman further discloses, controlling an amount of pieces which are collected in the second accumulation area by adjusting at least one of the following parameters: a speed of the conveyor, an angle of the conveyor with respect to horizontal, an angle of the airstream with respect to the angle of the conveyor, a pressure of the airstream, a position of the airstream relative to the end of the conveyor, a distance between the cylinder and the conveyor, and a height of the cylinder with respect to a height of the conveyor (col. 8, lines 19+).

Flottman also discloses, controlling an amount of pieces which are collected in the second accumulation area by adjusting at least one of the following parameters: a distance between the cylinder and the conveyor, and a height of the cylinder with respect to a height of the conveyor (c2 lines 64-67) for the purpose of controlling the separation level (c2 lines 66-67).

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to have modified Roman in view of Flottmann to include controlling an amount of pieces which are collected in the second accumulation area by adjusting at least one of the following parameters: a distance between the cylinder and the conveyor, and a height of the cylinder with respect to a height of the conveyor, as taught by Flottman, for the purpose of controlling the separation level (c2 lines 66-67).

***Response to Arguments***

14. Applicant's arguments filed 7-24-2006 regarding claim 1 state, "the Roman reference fails to teach or suggest an air manifold positioned underneath.... for blowing the pieces of shredded trash: exiting the conveyor belt with an air stream which is generally in the direction of travel of the conveyor belt to the roller at one end."

Examiner maintains that Roman does teach, an air manifold (116, 122) positioned underneath and approximately at the end of the conveyor belt (fig 4) for blowing the pieces of shredded trash exiting the conveyor belt with an air stream which is generally in the direction of travel of the conveyor belt.

15. Applicant's arguments filed 7-24-2006 regarding claim 1 further state, "the Roman reference fails to teach or suggest a splitter plate system comprising a cylinder parallel to the roller at the end of the conveyor belt." Examiner maintains that Roman does teach, a splitter plate system (164) disposed at a position forward of the end of the conveyor system comprising a cylinder (166) which is essentially parallel to the roller at the end of the conveyor belt.

16. Applicant's arguments with respect to the Wilbur and Kauffmann references have been considered but are moot in view of the new ground(s) of rejection necessitated by applicant's amendment.

***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

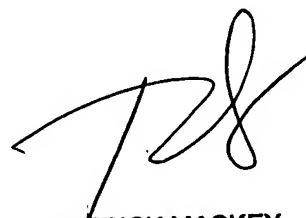
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Hageman whose telephone number is (571) 272-3027. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCH



**PATRICK MACKEY  
PRIMARY EXAMINER**